

REMARKS

Summary of Examiner Interview

A telephonic interview was conducted between the Examiner and Applicants' representative on June 17, 2009. Claim 1 was discussed. In particular, the Examiner's interpretation of the cited art was discussed. Agreement on the patentability of the claims was not reached, however a proposed amendment was discussed, which is reflected above.

Amendments

Amendments to the Claims

Claims 11, 12, 23, 30 and 34-37 are amended. No claims are canceled. No claims are added. No new matter has been added as the amendments are only to correct antecedent basis.

Rejections

Rejections under 35 U.S.C. § 103(a)

Claims 11, 12, 14, 16, 23 and 30-37 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Feitelson et al., "Parallel Job Scheduling: Issues and Approaches" (hereinafter "Feitelson") in view of U.S. Patent No. 6,745,222 to Jones et al. (hereinafter "Jones"). Applicants respectfully request withdrawal of these rejections because the cited references fail to teach or suggest all of the limitations of the claims.

Feitelson discusses the various techniques used for parallel job scheduling in a multiprocessor system. Feitelson teaches a global queue where all processors have a single shared queue and when a processor becomes available, it takes a thread from the queue for execution. Feitelson also teaches the use of partitions where a set of processors are allocated to a particular job. Dynamic partitioning includes a two-level scheduling scheme where the operating system deals with the allocation of processors to jobs and the applications handle the scheduling of chores on those processors.

Jones is directed to a system for providing predictable scheduling of programs using repeating pre-computed schedules on discretely scheduled and/or multiprocessor operating systems.

Applicants claim “changing association of a task of the plurality of tasks from a first scheduling domain to a second scheduling domain, if the task requires one of the shared resources assigned to the second scheduling domain.” As claimed, a resource is a specific object, assigned to a particular scheduling domain, for synchronization purposes. As such, Applicants submit that one of ordinary skill in the art would interpret the claim language to mean that a task uses a particular resource in order to be successfully executed by one of the processors.

Applicants respectfully submit that Feitelson does not teach or suggest changing association of a task if the task requires a resource in a different scheduling domain. In Feitelson, the processors are identical and are reallocated among the partitions based on whether a particular processor is being over-utilized or under-utilized. Feitelson essentially teaches a common “load-balancing” scheme, where migrations are triggered, based the work load of a processor, to overcome any imbalance. Feitelson does not teach or suggest that a task changes association from a first partition to a second partition because it requires a specific shared resource assigned to the second partition. In Feitelson, a distinct partition is created for each job; thus there is no reason for a job to change partitions. In addition, it would be improper to interpret the processors of Feitelson as the claimed resources. This is because Feitelson teaches that the processors can execute tasks from any partition, whereas in the claims, a shared resource is assigned to a particular scheduling domain. The claimed shared resources remain in a single scheduling domain and are not subject to domain migration. Furthermore, it would be improper to interpret the queues taught by Feitelson as the claimed shared resources because the queues are shared by the processors, not shared by tasks, as claimed. Therefore, Feitelson does not teach or suggest the above element of the claims.

Jones does not teach changing association of a task of the plurality of tasks from a first scheduling domain to a second scheduling domain, if the task requires one of the shared resources assigned to the second scheduling domain, as claimed. Therefore, Jones does not cure the deficiencies of Feitelson noted above.

Given that the combination of cited references fails to teach or suggest all of the limitations of the claims, Applicants respectfully submit that claims 11, 12, 23, 30, and 34-37 is patentable over the cited references. Given that claims 14, 16 and 31-33 directly or indirectly depend from one of the above independent claims, at least for reasons similar to those discussed above, it is respectfully submitted that dependent claims 14, 16 and 31-33 are patentable over the cited references. Accordingly, Applicants respectfully request that the rejection of claims 11, 12, 14, 16, 23 and 30-37 under 35 U.S.C. § 103(a) be withdrawn.

SUMMARY

Claims 11, 12, 14, 16, 23 and 30-37 are currently pending. In view of the foregoing amendments and remarks, Applicants respectfully submit that the pending claims are in condition for allowance. Applicants respectfully request reconsideration of the application and allowance of the pending claims.

If the Examiner determines the prompt allowance of these claims could be facilitated by a telephone conference, the Examiner is invited to contact Sue Holloway at (408) 720-8300 x3476.


Deposit Account Authorization

Authorization is hereby given to charge our Deposit Account No. 02-2666 for any charges that may be due. Furthermore, if an extension is required, then Applicants hereby request such extension.

Respectfully submitted,

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